

## ABSTRACT OF THE DISCLOSURE

A failure diagnosis apparatus for diagnosing a failure of an evaporative fuel processing system. The system includes a fuel tank, a canister having adsorbent for adsorbing evaporative fuel generated in the fuel tank, an air passage connected to the canister and communicating the canister with the atmosphere, a first passage for connecting the canister and the fuel tank, a second passage for connecting the canister and an intake system of an internal combustion engine, a vent shut valve for opening and closing the air passage, and a purge control valve provided in the second passage. A pressure in the evaporative fuel processing system is detected. Negative pressure in the intake system is reserved in a negative pressure reservoir during operation of the engine. The purge control valve and the vent shut valve are closed to introduce the reserved negative pressure into the evaporative fuel processing system, when stoppage of the engine is detected. It is determined whether or not there is a leak in the evaporative fuel processing system, based on the pressure detected during a predetermined determination period after introduction of the negative pressure.